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United States Department of Agriculture,

OFFICE OF EXPERIMENT STATIONS—Circular No. 61.

A. C. TRUE, Director.

STATISTICS OF LAND-GRANT COLLEGES AND AGRICULTURAL EXPERIMENT STATIONS, 1904.

Compiled by Miss M. T. SPETHMANN.

The following statistical statements relating to the institutions established under the acts of Congress of July 2, 1862, and August 30, 1890, and to the agricultural experiment stations, which, with a few exceptions, have been organized under the act of Congress of March 2, 1887, and are conducted as departments of the institutions receiving the benefits of the land-grant act of July 2, 1862, are abstracts of statistics which will be published later in the Annual Report of the Office of Experiment Stations. They have been compiled in part from replies to a circular of inquiry sent out from this Office and in part from the annual reports of the presidents of these institutions made on the schedules prescribed by the Commissioner of Education.

SUMMARY OF STATISTICS OF LAND-GRANT COLLEGES.

Educational institutions receiving the benefits of the acts of Congress of July 2, 1862, and August 30, 1890, are now in operation in all the States and Territories except Alaska, Hawaii, and Porto Rico. The total number of these institutions is 65, of which 63 maintain courses of instruction in agriculture. The aggregate value of the permanent funds and equipment of the land-grant colleges and universities in 1904 is estimated to be as follows: Land-grant fund of 1862, \$11,765,406.13; other land-grant funds, \$3,123,913.49; other permanent funds, \$12,489,036.82; land grant of 1862 still unsold, \$4,310,249.48; farm and grounds owned by the institutions, \$5,853,987.98; buildings, \$24,972,905.97; apparatus, \$2,021,418.93; machinery, \$1,988,440.82; libraries, \$2,347,347.95; live stock, \$306,485.64; miscellaneous equipment, \$3,361,394.90; total, \$72,540,588.11. The income of these institutions in 1904, exclusive of the funds received from the United States for agricultural experiment stations (\$719,999.67) was as follows: Interest on the land grant of 1862, \$730,001.58; interest on other land grants, \$85,134.65; United States appropriation

under act of 1890, \$1,200,000; interest on endowment or regular appropriation, \$1,074,605.22; State appropriation for current expenses, \$2,332,485.56; State appropriation for buildings or other special purposes, \$2,210,811.39; endowment, other than Federal or State grants, \$680,123.23; tuition fees, \$1,041,692.48; incidental fees, \$395,424.27; miscellaneous, \$1,748,062.97; total, \$11,498,341.35. The value of the additions to the permanent endowment and equipment of these institutions in 1904 is estimated as follows: Permanent endowment, \$638,600.10; buildings, \$1,956,268.39; libraries, \$142,768.38; apparatus, \$139,465.95; machinery, \$143,382.94; live stock, \$67,509.04; miscellaneous, \$133,978.73; total, \$3,221,973.53.

The number of persons in the faculties of the colleges of agriculture and mechanic arts was as follows: For preparatory classes, 372; for collegiate and special classes, 2,160; total, 2,740. In the other departments the faculties aggregated 1,575, making a grand total of 4,315 persons in the faculties of the land-grant institutions. The students in 1904 were as follows: (1) By classes—preparatory, 10,019; collegiate classes, 21,237; short course or special, 6,157; postgraduate, 565; other departments, 18,783; total, 56,226. (2) By courses: *Four-year*—agriculture, 4,436; horticulture, 636; household economy, 3,607; mechanical engineering, 4,435; civil engineering, 3,353; electrical engineering, 2,708; mining engineering, 931; chemical engineering, 273; architecture, 227. *Shorter*—agriculture, 5,281; dairying, 735; horticulture, 112; veterinary science, 834; military tactics, 18,377. The graduates in 1904 were 4,822, and since the organization of these institutions, 57,909. The average age of graduates in 1904 was 21 years and 10 months. The total number of volumes in the libraries was 1,927,045. The total number of acres of land granted to the States under the act of 1862 was 10,145,169, of which 897,142 are still unsold,

SUMMARY OF STATISTICS OF STATIONS.

Agricultural experiment stations are now in operation under the act of Congress of March 2, 1887, in all the States and Territories, and under special appropriation acts in Alaska, Hawaii, and Porto Rico.

In Connecticut, New Jersey, New York, Hawaii, Missouri, Alabama, and Louisiana separate stations are maintained wholly or in part by State funds. A number of substations are also maintained in different States. Excluding the substations, the total number of stations in the United States is 60. Of these, 55 receive appropriations provided for by acts of Congress.

The total income of the stations maintained under the act of 1887 during 1904 was \$1,508,820.25, of which \$719,999.67 was received from the National Government, the remainder, \$788,820.58, coming from the following sources: State governments, \$522,391.89; individuals and communities, \$7,300; fees for analyses of fertilizers,

\$94,070.82; sales from farm products, \$110,359.43; miscellaneous, \$54,698.44. In addition to this the Office of Experiment Stations had an appropriation of \$175,000 for the past fiscal year, including \$15,000 for the Alaska Experiment Stations, \$15,000 for the Hawaii Experiment Station, \$15,000 for the Porto Rico Experiment Station, \$20,000 for nutrition investigations, \$65,000 for irrigation investigations, and \$5,000 for farmers' institutes. The value of additions to the equipment of the stations in 1904 is estimated as follows: Buildings, \$168,087.44; libraries, \$12,859.04; apparatus, \$29,996.77; farm implements, \$18,360.68; live stock, \$34,065.94; miscellaneous, \$30,081.82; total, \$293,451.69.

The stations employ 795 persons in the work of administration and inquiry. The number of officers engaged in the different lines of work is as follows: Directors, 54; assistant and vice-directors, 17; special agents in charge, 3; chemists, 163; agriculturists, 47; agronomists, 41; animal husbandmen, 46; poultrymen, 8; horticulturists, 76; farm and garden foremen, 30; dairymen, 35; botanists, 55; plant pathologists, 7; entomologists, 59; zoologists, 4; veterinarians, 29; meteorologists, 8; foresters, 4; mycologists, 3; biologists, 6; physicists, 6; geologists, 7; bacteriologists, 20; irrigation engineers, 11; in charge of substations, 28; secretaries and treasurers, 31; librarians, 13; clerks and stenographers, 42. There are also 63 persons classified under the head of "miscellaneous," including superintendents of grounds and buildings, gardeners, plant breeders, farm mechanics, cheese experimenters, etc. Four hundred and fourteen station officers do more or less teaching in the colleges with which the stations are connected. During the year the stations published 393 annual reports and bulletins, which were supplied to nearly 700,000 addresses on the regular mailing lists. A larger number of stations than formerly supplemented their regular publications with more or less frequent issues of press bulletins and other special publications, and most of the stations report a large and constantly increasing correspondence with farmers on a wide variety of topics.

STATISTICS OF THE LAND-GRANT COLLEGES AND UNIVERSITIES.^a

TABLE 1.—General statistics of institutions established under the land-grant act of July 2, 1862.

[All of the institutions in this list, except those marked with an asterisk (*), maintain courses of instruction in agriculture.]

State or Territory.	Name of institution.	Location.	President.	Faculty.		
				College of agricult- ure and mechan- ic arts.	Other depart- ments.	Experi- ment station officers.
Alabama	Alabama Polytechnic Institute.	Auburn	C. C. Thach, M. A.	831	3	14
Arizona	Agricultural and Mechanical College for Negroes.	Normal	W. H. Cunnell, Ph. D.	20	3	
Arkansas	University of Arizona.	Tucson	K. C. Babcock, Ph. D.	629		6
	University of Arkansas.	Fayetteville	H. S. Hartzog, LL. D.	619		6
California	* Branch Normal College.	Pine Bluff	Isaac Fisher	9		
Colorado	University of California.	Berkeley	B. I. Wheeler, Ph. D., LL. D.	56		37
	The State Agricultural College of Colorado	Fort Collins	B. O. Aylesworth, M. A., LL. D., LL. D.	641		15
Connecticut	Connecticut Agricultural College	Storrs	R. W. Stimson, M. A., D. B.	24		15
Delaware	Delaware College.	Newark	G. A. Harter, M. A., Ph. D.	19		6
Illinois	State College for Colored Students.	Dover	W. C. Jason, M. A., B. D.	67		
Florida	University of Florida.	Lake City	Andrew Sled, A. M., Ph. D.	622	6	14
	Florida State Normal and Industrial School.	Tallahassee	N. B. Young, M. A.	18	2	
Georgia	Georgia State College of Agriculture and Mechanic Arts.	Athens	H. C. White, Ph. D.	24		
	Georgia State Industrial College.	College	R. R. Wright, M. A., LL. D.	11		
Idaho	University of Idaho.	Moscow	J. A. MacLean, A. M., Ph. D.	23		10
Indiana	University of Illinois.	Urbana	E. J. James, Ph. D., LL. D.	174	175	23
	Purdue University.	Lafayette	W. E. Stone, Ph. D.	90	13	10
Iowa	Iowa State College of Agriculture and the Mechanic Arts.	Ames	A. B. Storms, A. M., D. D., LL. D.	101		35
Kansas	Kansas State Agricultural College.	Manhattan	E. R. Nichols, M. A.	66	14	18
Kentucky	Agricultural and Mechanical College of Kentucky.	Lexington	J. K. Patterson, Ph. D., LL. D.	30	12	14
	The Kentucky Normal and Industrial Institute for Colored Persons.	Frankfort	J. S. Hathaway, M. A., M. D.	10	5	
Louisiana	Louisiana State University and Agricultural and Mechanical College.	Baton Rouge	T. D. Boyd, M. A., LL. D.	23	3	25
	Southern University and Agricultural and Mechanical College.	New Orleans	H. A. Hill	17		
Maine	The University of Maine.	Orono	G. E. Fellows, M. A., Ph. D., LL. D.	645	13	12
Maryland	Maryland Agricultural College	College Park	R. W. Silvester	20		15
Massachusetts	Princess Anna Academy.	Princeton, Mass.	R. H. Jesse, LL. D.	11		
	Massachusetts Agricultural College.	Amherst	H. H. Goodell, LL. D.	28		21
	* Massachusetts Institute of Technology.	Boston	H. S. Pritchett	186		
Michigan	Michigan State Agricultural College	Agricultural College	J. L. Snyder, M. A., Ph. D.	70		11
Minnesota	The University of Minnesota.	Minneapolis	Cyrus Northrop, LL. D.	699	215	15
Mississippi	Mississippi Agricultural and Mechanical College.	Agricultural College	J. C. Hardy, M. A., LL. D.	34	15	12
Missouri	Alcorn Agricultural and Mechanical College	Columbia	W. H. Lanier, B. A.	19		
	Lincoln Institute	Jefferson City	B. F. Allen, M. A., LL. D.	62	65	21
Montana	The Montana State College of Agriculture and Mechanic Arts.	Bozeman	J. M. Hamilton	21		11
Nebraska	The University of Nebraska	Lincoln	E. B. Andrews, LL. D.	78	175	17
Nevada	Nevada State University.	Reno	J. E. Stubbs, M. A., D. D.	24		9
New Hampshire	The New Hampshire College of Agriculture and the Mechanic Arts.	Durham	W. D. Gibbs, M. S.	21		12
New Jersey	Rutgers Scientific School, The New Jersey State College for the Benefit of Agriculture and the Mechanic Arts.	New Brunswick	Austin Scott, Ph. D., LL. D.	19	3	21
New Mexico	New Mexico College of Agriculture and Mechanic Arts.	Mesilla Park	Luther Foster, M. S. A.	28		12
New York	Cornell University.	Ithaca	J. G. Schurman, A. M., D. Sc., LL. D.	31	374	19
North Carolina	The North Carolina College of Agriculture and Mechanic Arts.	Raleigh	G. T. Winston, M. A., LL. D.	39		14
	The Agricultural and Mechanical College for the Colored Race.	Greensboro	J. B. Dudley, M. A.	612		
North Dakota	North Dakota Agricultural College	Agricultural College	J. H. Worst, LL. D.	633		15
Ohio	Ohio State University.	Columbus	W. O. Thompson, D. D., LL. D.	105	25	9
Oklahoma	Oklahoma Agricultural and Mechanical College.	Stillwater	A. C. Scott, M. A., LL. M.	28		11
	Agricultural and Normal University	Langston	I. E. Pace, M. A.	12		
Oregon	Oregon State Agricultural College	Corvallis	T. M. Gatch, M. A., Ph. D.	33		11
Pennsylvania	The Pennsylvania State College	State College	W. J. Kerr, D. Sc.	80	28	15
Rhode Island	Rhode Island College of Agriculture and Mechanic Arts.	Kingston	K. L. Butterfield, LL. D.	69		20
South Carolina	Clemson Agricultural College of South Carolina.	Clemson College	P. H. Mell, M. E., Ph. D.	445	45	17
	The Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	Orangeburg	T. E. Miller, LL. D.	18		8
South Dakota	South Dakota Agricultural College	Brookings	James Chalmers, Ph. D.	39		17
Tennessee	University of Tennessee.	Knoxville	Brown Ayres, Ph. D., LL. D.	47	16	9
Texas	Agricultural and Mechanical College of Texas.	College Station	D. F. Houston, M. A., LL. D.	26		12
Utah	Utah State Normal and Industrial College.	Prairieview	E. L. Blackshear	11		
Vermont	Agricultural College of Vt.	Windsor	W. J. Kerr, D. Sc.	80		15
Virginia	University of Vermont and State Agricultural College.	Burlington	M. H. Buckham, D. D., LL. D.	30		
	The Virginia Agricultural and Mechanical College and Polytechnic Institute.	Blacksburg	J. M. McBryde, Ph. D., LL. D.	56		18
Washington	Hampton Normal and Agricultural Institute.	Hampton	H. B. Frissell, D. D., LL. D.	135		
	Washington Agricultural College and School of Science.	Pullman	E. A. Bryan, M. A., LL. D.	51		1
West Virginia	West Virginia University.	Morgantown	D. B. Purinton, Ph. D., LL. D.	45	19	13
	The West Virginia Colored Institute.	Institute	J. McH. Jones, A. M.	17	17	
Wisconsin	University of Wisconsin	Madison	C. R. Van Hise, Ph. D.	76		23
Wyoming	University of Wyoming	Laramie	F. M. Tisdell, Ph. D.	624		9
	Total.			5,740	1,575	706

^a Including also institutions receiving apportionments from the appropriation of 1890.

^b Total, counting none twice.

TABLE 2.—Students, revenue, and additions to equipment for year ended June 30, 1904.

State or Territory.	Students.			Graduates in 1903-4.	Revenue.				United States appropriation for experiment stations.	Additions to equipment.
	Agriculture and mechanic arts.	Other departments.	Total.		Federal aid.	State aid.	Fees and all other sources.	Total.		
Alabama (Auburn)	480		480	52	\$34,130.00	\$25,821.43	\$7,075.18	\$67,024.61	\$15,000.00	\$8,400.00
Alabama (Normal)	480		480	126	41,150.00	2,410.00	17,560.00	60,120.00		12,015.00
Arizona	205		205	5	25,000.00	56,398.68	3,445.21	84,833.89	15,000.00	35,828.59
Arkansas (Payetteville)	814	438	1,252	30	28,389.25	76,346.31	5,071.82	109,757.38	14,999.67	36,000.00
Arkansas (Fine Bluff)	200		200	7	6,438.18	5,025.00		11,463.18		
California	433		433	365	73,710.00	567,746.06	289,463.13	930,919.19	15,000.00	57,543.56
Colorado	183		183	8	24,968.12	8,926.68	119,305.01	153,200.81	15,000.00	53,274.47
Connecticut	125		125	20	24,980.00	7,500.00	30,426.77	62,951.77	7,500.00	9,086.31
Delaware (Newark)	78		78	2	5,000.00	2,000.00	6,264.92	38,744.92	15,000.00	11,300.00
Delaware (Dover)	193		193	11	12,500.00		2,408.62	9,800.00		
Florida (Lake City)	229		229	11	12,500.00			13,500.00	15,000.00	24,776.84
Florida (Tallahassee)	163		163	13	33,620.80	1,333.23	34,954.03	68,519.49	15,000.00	57,600.00
Georgia (Athens)	434		434	20	8,333.34	8,000.00	16,333.34	38,804.23		
Idaho	360		360	61	41,460.08	21,500.00	844.15	63,404.23	15,000.00	28,546.10
Illinois	2,384	1,184	3,568	593	59,223.37	626,204.00	255,742.66	941,166.03	15,000.00	161,195.00
Indiana	1,440		1,440	219	42,000.00	117,701.64	54,216.46	243,918.10	15,000.00	103,400.00
Iowa	1,968	17	1,985	120	66,176.83	221,080.01	47,146.72	334,406.56	15,000.00	123,716.71
Kansas	1,007		1,007	99	50,657.70	152,362.12	10,467.00	213,356.82	15,000.00	83,515.00
Kentucky (Lexington)	569	107	676	74	30,019.30	36,830.32	4,234.05	71,083.67	15,000.00	51,296.59
Kentucky (Frankfort)	151		151	22	4,880.30	8,000.00	5,562.69	18,443.19		34,311.11
Louisiana (Baton Rouge)	438		438	22	27,208.92	25,826.54	9,310.31	62,342.77	15,000.00	41,800.00
Louisiana (New Orleans)	708		708	52	12,348.77	10,000.00	767.99	23,116.76		498.63
Massachusetts (Amherst)	474	71	545	38	30,915.00	35,000.00	32,759.20	118,674.20	15,000.00	41,800.00
Maryland (College Park)	189		189	13	25,000.00	61,000.00	29,285.71	116,185.71		32,750.00
Maryland (Princess Anne)	220		220	21	20,316.66	22,919.19	1,842.11	46,042.94	15,000.00	
Massachusetts (Boston)	1,528		1,528	231	13,537.28	25,000.00	398,231.17	336,768.45	15,000.00	11,340.00
Michigan	1,241	2,584	3,825	454	47,928.77	340,333.46	132,869.38	531,151.61	15,000.00	169,460.14
Minnesota	709		709	31	25,949.25	641,438.86	33,374.06	708,762.17	15,000.00	49,729.84
Mississippi (Agricultural College)	729		729	8	26,029.77	13,000.00	6,654.00	45,683.77		
Mississippi (Westside)	1,308		1,308	116	52,735.11	375,369.33	42,899.73	471,024.17	15,000.00	
Missouri (Jefferson City)	70	332	402	104	1,562.50	22,175.00	23,737.50	25,737.50		11,340.00
Montana	208	149	357	8	33,988.00	28,000.00	7,397.54	69,385.54	15,000.00	30,040.00
Nebraska	751	1,769	2,520	156	80,000.00	282,250.00	40,670.00	402,920.00	15,000.00	68,500.00
Nevada	248		248	18	31,042.77	15,207.23	2,218.04	48,468.04	15,000.00	7,123.18
New Hampshire	320		320	14	29,880.00	17,500.00	21,332.88	68,712.88	15,000.00	11,242.96
New Jersey	134		134	44	30,880.00	2,500.00	24,308.62	57,688.62	15,000.00	15,841.44
New Mexico	224		224	6	25,000.00	13,456.66	3,416.61	41,873.27	15,000.00	10,002.55
New York	1,106	1,985	3,091	532	59,428.80	24,250.00	1,387,407.08	1,446,835.88	13,500.00	648,403.88
North Carolina (Raleigh)	858		858	6	8,250.00	7,500.00	8,529.61	23,279.61		814.56
North Carolina (Greensboro)	720		720	6	47,918.32	29,178.82	6,555.50	83,652.64	15,000.00	3,243.05
Ohio	999	801	1,800	196	59,257.37	353,498.77	169,604.46	822,360.60		163,332.21
Oklahoma (Stillwater)	420		420	20	31,402.84	19,277.73	6,210.41	56,890.98	15,000.00	7,414.55
Oklahoma (Langston)	271		271	4	2,500.00			2,500.00		2,300.00
Oregon	530		530	35	35,943.36	25,115.19	3,088.09	64,146.64	15,000.00	10,566.90
Pennsylvania	730	2,100	2,830	71	30,637.43	130,785.34	55,769.35	267,192.12	15,000.00	271,000.00
Rhode Island	112		112	3	27,500.00	22,000.00	2,345.76	52,045.76	15,000.00	1,693.01
South Carolina (Clemson College)	610		610	8	18,254.00	127,437.14	14,009.76	159,701.20	15,000.00	47,403.38
South Carolina (Orangeburg)	711		711	51	18,254.00			25,254.00	15,000.00	49,670.00
Tennessee	519		519	21	38,027.06	76,000.00	12,377.98	126,405.04	15,000.00	45,603.28
Texas (College Station)	332	333	665	32	48,960.00	190,000.00	39,919.82	288,020.00	15,000.00	60,000.00
Utah	378		378	36	33,030.00			33,030.00	15,000.00	5,765.32
Vermont	312		312	46	6,250.00	20,800.00	11,000.00	37,750.00		4,200.00
Virginia (Blacksburg)	348	235	583	14	31,362.11	66,731.53	12,848.01	110,941.65	15,000.00	192,348.11
Virginia (Hampton)	727		727	71	33,130.00	11,000.00	87,585.06	131,715.06	15,000.00	33,594.74
Washington	41,764		41,764	31	37,325.39	112,439.99	28,771.27	178,536.65	15,000.00	
West Virginia (Morgantown)	119	872	991	51	18,662.69	16,826.69	165,572.50	184,239.19	15,000.00	102,500.00
Wisconsin	197		197	11	5,000.00		1,900.00	28,500.00		20,179.64
Wyoming	125	155	280	14	30,448.94	471,900.00	185,226.25	708,575.19	15,000.00	71,897.03
Total	37,978	18,783	56,761	4,822	2,015,136.23	5,617,902.17	3,865,302.93	11,498,341.35	695,999.67	8,221,973.53

a Total, counting none twice.

b Including appropriation for buildings and other special purposes for two years.

c Including correspondence courses.

d Including summer institute.

STATISTICS OF THE AGRICULTURAL EXPERIMENT STATIONS.

TABLE 3.—General statistics, revenue, and additions to equipment, 1904.

Station.	Location.	Director.	Number on staff.	Number of teachers on staff.	Publications during fiscal year 1903-4.		Number of addresses on mailing list.	Revenue.				Additions to equipment.
					No.	Pages.		Hatch fund.	State.	Other sources.	Total.	
Alabama (College)....	Auburn.....	J. F. Duggar, M. S.....	14	10	5	195	12,500	\$15,000.00		\$12,441.44	\$27,441.44	\$3,663.00
Alabama (Canebrake)....	Uniontown.....	M. S. Richeson, M. S.....	3		3	52	1,900		\$2,500.00	800.00	3,300.00	5,300.00
Alabama (Tuskegee)....	Tuskegee Institute.....	G. W. Carver.....	10	7					1,500.00		1,500.00	500.00
Arizona.....	Tucson.....	E. H. Forbes, M. S.....	6	3	4	188	7,451	15,000.00		313.39	16,313.39	1,144.88
Arkansas.....	Fayetteville.....	W. G. Vinckenbinder.....	6	2	8	170	9,250	14,999.67		803.83	15,803.50	915.97
California.....	Berkeley.....	E. W. Hilgard, Ph. D., LL.D.....	37	19	12	447	9,290	15,000.00	6,139.91		21,139.91	24,000.00
Colorado.....	Fort Collins.....	L. G. Carpenter, M. S.....	13	9	9	98	8,860	15,000.00		1,315.39	16,315.39	710.29
Connecticut (State).....	New Haven.....	E. H. Jenkins, Ph. D.....	17		3	563	12,069	7,500.00	15,500.00	\$11,761.64	34,761.64	576.72
Connecticut (Storrs).....	Storrs.....	L. A. Clinton, M. S.....	15	10	6	314	9,000	7,500.00		1,800.00	9,300.00	1,278.26
Delaware.....	Newark.....	A. T. Neale, Ph. D.....	6	6	4	80	7,348	15,000.00			15,000.00	1,428.20
Florida.....	Lake City.....	Andrew Sledge, Ph. D.....	14	8	5	152	3,718	15,000.00			15,000.00	3,281.22
Georgia.....	Experiment.....	R. J. Redding.....	7	1	4	96	13,000	15,000.00	757.96	6,991.30	22,749.26	2,477.00
Idaho.....	Moscow.....	H. T. French, M. S.....	10	6	5	112	5,230	15,000.00	955.79	844.15	16,799.94	3,908.79
Illinois.....	Urbana.....	Engene Cavenpoint, M. S., Agr.....	33	19	15	372	25,230	15,000.00	83,000.00	\$3,095.27	138,095.27	13,277.88
Indiana.....	Lafayette.....	Arthur Goss, M. S., A. C.....	10	8	5	103	9,724	15,000.00		2,416.72	17,416.72	786.85
Iowa.....	Ames.....	C. F. Curtis, M. S., A. C.....	35	20	7	589	12,390	15,000.00	5,047.85		20,047.85	2,554.07
Kansas.....	Manhattan.....	J. T. Willard, M. S.....	18	13	6	282	21,145	15,000.00	617,800.00	\$5,349.39	88,249.39	3,100.69
Kentucky.....	Lexington.....	M. A. Seovell, M. S.....	14	1	7	488	9,000	15,000.00	\$10,208.18		33,791.47	20,179.68
Louisiana (Sugar).....	New Orleans.....	W. R. Dodson, B. A., B. S.....	25	3	5	156	15,000	15,000.00	20,000.00	\$24,230.65	59,230.65	4,457.17
Louisiana (State).....	Baton Rouge.....	do.....										
Louisiana (North).....	Calhoun.....	do.....										
Maine.....	Orono.....	C. D. Woods, B. S.....	12	4	12	276	9,000	15,000.00		\$6,222.04	21,222.04	2,774.41
Maryland.....	College Park.....	H. J. Patterson, B. S.....	15	9	9	159	15,000	15,000.00		4,610.54	24,610.54	3,550.44
Massachusetts.....	Amherst.....	H. H. Goodell, LL. D.....	21	9	10	473	32,250	15,000.00	13,000.00	\$13,724.85	41,724.85	2,270.63
Michigan.....	Agricultural College.....	C. D. Smith, M. S.....	11	5	17	831	35,000	15,000.00	\$5,500.00	\$8,315.98	28,815.98	1,277.97
Minnesota.....	St. Anthony Park.....	W. M. Liggett.....	15	7	4	317	13,560	15,000.00	\$35,362.88	\$10,265.74	60,568.62	12,996.93
Mississippi.....	Agricultural College.....	W. H. Hutchinson, M. S.....	15	5	8	175	20,000	15,000.00	\$20,000.00	\$2,287.92	37,287.92	990.00
Missouri (College).....	Columbia.....	H. J. Waters, B. S., A. C.....	21	12	7	177	7,000	15,000.00	3,000.00	\$7,625.79	25,625.79	1,792.46
Missouri (Fruit).....	Mountain Grove.....	Paul Eyaas.....			3	57	4,500		21,250.61		21,250.61	1,200.00
Montana.....	Bozeman.....	F. B. Linfield, B. S., A. C.....	11	10	10	378	3,996	15,000.00	24,011.71	\$1,871.62	42,882.73	15,200.00
Nebraska.....	Lincoln.....	A. A. Barnett, B. S., A. C.....	17	13	9	240	20,740	15,000.00		7,637.76	22,537.76	81,722.62
Nevada.....	Reno.....	J. E. Stubbs, M. S., A. D., D.....	9	6	4	120	2,833	15,000.00		867.98	15,867.98	1,146.02
New Hampshire.....	Durham.....	W. D. Gibbs, M. S.....	16	7	8	152	13,000	15,000.00		1,129.21	16,129.21	1,666.45
New Jersey (State).....	New Brunswick.....	E. B. Voorhes, D. Sc.....	13	2	4	9	915	10,500	25,000.00		35,000.00	2,830.10
New Jersey (College).....	do.....	do.....	8					15,000.00			15,000.00	1,659.92
New Mexico.....	Mesilla Park.....	Luther Foster, M. S., A. C.....	12	8	8	296	3,000	15,000.00		2,077.61	17,077.61	4,450.00
New York (State).....	Geneva.....	W. H. Jordan, D. Sc.....	25		32	1,150	45,300	1,900.00	\$76,362.86		77,262.86	47,332.69
New York (Cornell).....	Ithaca.....	L. H. Bailey, M. S.....	19	18	9	198	12,000	13,500.00	23,333.34		36,833.34	1,900.00
North Carolina.....	Raleigh.....	W. W. Kilgore, M. S.....	14	8	4	120	26,000	15,000.00	5,000.00	\$2,185.77	23,185.77	1,884.71
North Dakota.....	Agricultural College.....	J. B. Worth, LL. D.....	15	9	6	409	10,500	15,000.00	6,700.00	4,709.90	20,409.90	1,422.23
Ohio.....	Wooster.....	E. E. Thorpe, M. S., A. C.....	22		6	80	45,000	15,000.00	\$1,821.78	\$14,085.22	20,916.67	12,116.45
Oklahoma.....	Stillwater.....	John Fields, B. S.....	11	9	6	340	20,889	15,000.00	1,821.78	\$2,308.67	19,020.45	756.43
Oregon.....	Corvallis.....	Jas. Withneycomb, M. Agr.....	11	10	5	146	5,100	14,000.00		1,708.13	16,708.13	533.05
Pennsylvania.....	State College.....	H. P. Arnsby, Ph. D.....	20	7	5	281	15,367	15,000.00	1,000.00	19,777.92	35,777.92	4,481.07
Rhode Island.....	Kingston.....	H. J. Wheeler, Ph. D.....	11	7	8	320	10,000	15,000.00		\$2,791.00	17,791.00	1,153.29
South Carolina.....	Clemson College.....	P. H. Mell, M. E., Ph. D.....	17	11	10	173	11,000	15,000.00		3,815.10	18,815.10	2,142.69
South Dakota.....	Brookings.....	P. W. Wilson, M. S., A. C.....	9	8	194	9,660	15,000.00	1,500.00		1,736.12	18,236.12	577.00
Tennessee.....	Knoxville.....	H. A. Morgan.....	12	6	10	104	11,000	15,000.00		5,201.96	20,201.96	1,908.41
Texas.....	College Station.....	J. A. Craig, B. S., A. C.....	12	8	5	134	20,200	15,000.00	6,500.00	796.02	20,796.02	1,676.71
Utah.....	Logan.....	J. A. Wilcox, Ph. D.....	15	9	7	258	6,000	15,000.00		1,188.59	15,188.59	918.20
Vermont.....	Burlington.....	J. L. Hills, D. Sc.....	12	6	10	136	11,413	15,000.00	1,468.00	2,548.47	19,026.47	3,255.41
Virginia.....	Blacksburg.....	A. M. Soule, B. S., A. C.....	18	8	11	272	12,000	15,000.00	25.00	191.90	15,216.90	211.83
Washington.....	Pullman.....	E. A. Bryan, LL. D.....	12	12	2	49	5,000	15,000.00		\$830.78	15,830.78	986.45
West Virginia.....	Morgantown.....	J. H. Stewart, M. A.....	15	6	6	207	8,700	15,000.00		12,175.05	27,175.05	4,988.83
Wisconsin.....	Madison.....	W. A. Henry, D. Agr.....	23	21	15	882	17,000	15,000.00	15,000.00	1,800.00	35,800.00	14,028.51
Wyoming.....	Laramie.....	B. C. Buffum, M. S.....	9	4	5	220	3,500	15,000.00		2,168.57	17,168.57	4,371.65
Total.....			795	414	393	15,056	685,201	719,999.67	\$22,591.89	\$266,428.69	1,508,820.25	283,461.69

* Including balance from previous year.
 † Including substitutions.

* For substitutions, including \$44,000 for McNeal substitution for two years.
 † For year ended September 30, 1904.

Recommended for publication.
 A. C. TRUE, *Director.*

Publication authorized.
 JAMES WILSON, *Secretary of Agriculture.*

WASHINGTON, D. C., February 1, 1905.

